

Appendix C – Community Capability Assessment

A. INTRODUCTION

The Community Mitigation Capability Assessment details the Town of Knightdale's ability to attend to threats from natural disasters. The following sections detail and examine the Town's capabilities from several areas:

- Staff and organizational capability
- Technical capability
- Policy and Program capability
- Legal authority
- Fiscal capability
- Political capability

The assessment was conducted to provide insight on how the Town of Knightdale currently mitigates potential disasters, highlighting those measures that currently exist. By doing so, the Town is able to identify potential shortfalls or weaknesses that may need to be addressed. This assessment serves as the foundation of an effective Pre-Disaster Mitigation Plan. It not only helps establish goals and objectives for the Town by assessing the existing capabilities of the Town, but also ensures that those goals and objectives are realistically achievable given the local conditions.

B. STAFF AND ORGANIZATIONAL CAPABILITY

The Town of Knightdale is fortunate to have a highly trained staff to implement technical aspects and policies and programs identified in the subsequent sections of the capabilities assessment. Although limited due to the numbers of staff persons, the Town employees are capable of promoting the mitigation process and educating the public about potential natural hazards.

The local government of Knightdale is comprised of the following:

- *Mayor and Five Member Town Council:* The Mayor and Town Council are responsible for serving the people of Knightdale and improving the quality of life. These duties include approving new ordinances and policies that guide the growth of the Town.
- *Land Use Review Board:* The Land Use Review Board serves as an advisory board to the Mayor and Town Council in the areas of planning, site design, and planning specific ordinance and plan revisions; and is responsible for granting relief from ordinance requirements and hearing appeals to decisions made by the Town in its capacity also as the Board of Adjustment.



- *Parks and Recreation Advisory Board:* The Parks and Recreation Advisory Board serves as an advisory board to the Mayor and Town Council in matters relating to parks, greenways, opens space, and other recreational opportunities in the Town.
- *Town Manager:* The Town Manager serves on behalf of the Mayor and Town Council and manages the Town's finances and services. The Town Manager also directs and supervises the administration of all the Town offices, boards, commissions and agencies.
- *Engineering Department:* The Engineering Department is responsible for reviewing all stormwater infrastructure plans as well as ensuring that specified building setbacks and conditions of building occupancy are met.
- *Planning Department:* The Planning Department is responsible for the administration and enforcement of all land use regulations and policies, including zoning, subdivision, and floodplain management, as well as developing and implementing plans to guide the growth of the Town.
- *Parks and Recreation Department:* The Parks and Recreation Department maintains the park system and administers the recreational programs of the Town.
- *Public Works Department:* The Public Works Department is responsible for maintaining and inspecting all public stormwater infrastructure, seasonal leaf pick-up, and maintenance of Town-owned streets within the Town of Knightdale.
- *Public Safety Department:* The Public Safety Department is comprised of the Town's Police and Fire Departments. These departments are cross trained in fire and police work, as well as other emergency response needs to ensure that the first person on the scene is capable of providing assistance.
- *Wake County Assistance:* The Town of Knightdale depends on Wake County for assistance in the fields of Building Code Inspections and Sediment/Erosion Control.
- *City of Raleigh Assistance:* The City of Raleigh owns and operates the water and sanitary sewer systems in the Town of Knightdale. The water system consists of supply, treatment, storage and transmission facilities and currently serves approximately 4,000 customers.

C. TECHNICAL CAPABILITY

The Town of Knightdale has the basic technological capabilities to help mitigate and respond to natural disasters.

- *Geographic Information Systems:* The Town of Knightdale has a GIS System that is used to collect, manage, analyze and display spatially referenced data. This data includes local zoning designations and land use characteristics including floodzone data.



- *Internet Capabilities:* The Town of Knightdale is connected to the internet for most employees. This enables the Town to research current mitigation information and monitor approaching hazards. The Town also has an active website and electronic newsletter that are utilized to provide information to residents and visitors about the Town, including contact information, development regulations, and even severe weather bulletins.
- *Telecommunications:* The Town of Knightdale utilizes Mobile Phone and Direct Connect service for its vital personnel, including department heads, public works and public safety personnel. This enables instant communication in case landlines are lost due to a disaster.

D. POLICY AND PROGRAM CAPABILITY

The Town of Knightdale has many existing policies and programs in place to help assist in mitigating future disasters. This assessment will provide an overview of each policy or program, evaluate its effectiveness and provide the rationale for that evaluation. As Town plans and policies are updated or introduced for the first time, the Town's Hazard Mitigation Plan is being incorporated by reference, particularly in plan and policy sections that have been revised as a direct result of the hazard identification/risk assessment and mitigation strategy development processes.

UNIFIED DEVELOPMENT ORDINANCE

The Town of Knightdale's Unified Development Ordinance (UDO) is a combination of all land development regulations that apply to the Town, including, zoning, subdivision, stormwater, floodplain, and signs. The Hazard Mitigation Plan was consulted when the UDO was completely re-written in 2005, specifically for expanding upon the old UDO Article 20 "Flood Damage Prevention, Stream Protection, Drainage and Erosion" to create the new UDO Chapter 6 "Environmental Protection", ensuring that established strategies involving the UDO are being addressed.

2027 COMPREHENSIVE PLAN

The Town of Knightdale's 2027 Comprehensive Plan, approved in 2003, is a guide for the future growth of the Town. The Plan components include a review of existing conditions and provide objectives and action items for future growth in the areas of Utilities, Transportation, Community Services, Community Design, Parks and Recreation, and Open Space. In April of 2009, the Town established a Comprehensive Plan Update Committee to oversee needed revisions to the 2027 Comprehensive Plan. Again, the Hazard Mitigation Plan is being used as a reference document to ensure that established strategies involving the comprehensive plan are being addressed.



BUILDING CODES

The Town of Knightdale utilizes the approved State of North Carolina Building Code, which prescribes the minimum standards for building construction. This ensures structures are built to standards that have a high wind resistance and developed within flood-proofing measures.

NATIONAL FLOOD INSURANCE PROGRAM

The National Flood Insurance Program provides flood insurance to individuals in communities that are members of the program. The Town of Knightdale has adopted and enforces floodplain management and development regulations, which are a prerequisite for participating members.

TOWN OF KNIGHTDALE EMERGENCY OPERATIONS PLAN

The Town of Knightdale's Public Safety Department has an Emergency Operations Plan in place that details the actions needed to be taken when various emergencies occur. This plan was updated in October 2007, using the Hazard Mitigation Plan as a reference document to ensure that established strategies involving the Emergency Operation Plan were being addressed, and included updates based on required NIMS training completed by all Town employees.

TOWN OF KNIGHTDALE DISASTER RESPONSE PLAN

The Town of Knightdale Public Works Department is currently in the process of developing a Disaster Response Plan as a direct result of the strategies outlined in the Hazard Mitigation Plan. This local response plan is being coordinated with and developed in addition to the county-wide response plan administered by Wake County.

CITY OF RALEIGH WATER CONSERVATION TASK FORCE

The City of Raleigh strongly encourages conservation of its finished water. The City's Water Conservation Task Force (WCTF) reviewed the City's water conservation plan and developed recommendations to improve the plan based on experiences gained from the 2002 and 2005 droughts. The task force produced a water conservation recommendation that requires alternate-day irrigation throughout the year, and Stages 1 and 2 water conservation rules to be implemented by the City as needed during a drought or other water supply shortages. The WCTF presented its final report and recommendations to the City Council in May 2006. The recommendations were approved and adopted as a City ordinance. The water conservation rules apply to customers in Raleigh and in the towns that receive water from the Capital City: Garner, Rolesville, Wake Forest, Knightdale, Wendell and Zebulon.



Table C-1 - Inventory of Local Ordinances Relevant to Pre-Disaster Mitigation

TITLE	SECTION	PURPOSE/DESCRIPTION	EFFECTIVENESS	RATIONALE
Unified Development Ordinance	Chapter 8, Tree Protection and Landscaping	Provides standards for landscaping, replacements for large trees that are removed and buffering of lots to reduce radiant heat and conserve energy, provide shade, reduce impervious surfaces, control stormwater runoff and beautify the Town.	MODERATE	Assists in controlling stormwater runoff, and provides relief from high winds and heat. Conversely, large trees that are weak may become dangerous during high wind storms.
Unified Development Ordinance	Chapter 7, Open Space	Requires new subdivisions to provide both passive and active recreation areas that are accessible for public enjoyment. Areas that cannot be readily accessed remain as undisturbed open space and may not be counted toward recreation requirements.	MODERATE	Open Space helps reduce impervious surface, and much of the floodplain areas are left as open space, which ensures that the area will not be developed and damaged from future flooding events.
Unified Development Ordinance	Chapter 6, Environmental Protection	Controls development in floodplain by restricting activities, alterations in floodplains in order to protect lives and property and minimize rescue and relief efforts. Provides specific standards for Sediment and Erosion Control (Section 6.2), Post Construction Stormwater Management (Section 6.3), Illicit Discharges and Connections to the Stormwater System (Section 6.4) and Flood Damage Prevention (Section 6.5).	HIGH	Ensures the protection of floodplains. By providing standards for construction in a floodplain, it minimizes the potential for damage should flooding occur.



Unified Development Ordinance	Chapter 10, Parking Standards	Provides standards for parking lot design, including landscaping, shade trees, and parking space maximums.	MODERATE	Assists in keeping the amount of impervious surface in check by establishing maximum numbers of parking stalls allowed per development type. If maximums are to be exceeded, compensation must be made by utilizing pervious paving materials, adding more landscaping, etc.; thereby helping control stormwater runoff.
2027 Comprehensive Plan	Chapter 4 Community Services, Section VI. Objectives and Action Items	<p>Provides objectives and action items to direct the planning and implementation strategies related to community services, such as public safety:</p> <ul style="list-style-type: none"> • Action 4.1 calls for elevated water storage to maximize operations, and provide emergency reserves in case of disaster. • Action 4.10 provides criteria for locating new fire stations, ensuring that response times are kept at a minimum. • Action 4.11 provides standard that all structures or fire hydrants within corporate limits shall be located within 1.5 miles of a fire station. • Action 4.12 calls for the Town to implement utility related ordinances to the UDO, including provisions for water conservation, drought management, among others. 	MODERATE	The Comprehensive Plan recommends actions to be taken that will improve the response of fire response teams, ensure reserves in water for disasters, and improve the existing Ordinance requirements relating to utilities. However, these recommendations are only guidelines and need to be codified to improve their effectiveness to mitigate future disasters.



2027 Comprehensive Plan	Chapter 6, Parks and Recreation Master Plan	<p>Provides objectives and action items to direct the planning and implementation strategies related to the parks, recreation, open space and greenway system in the Town:</p> <ul style="list-style-type: none"> Provides provisions for open space to be used as passive parks. These spaces include protect natural areas, such as wetlands, steep slopes and floodplains in their natural configuration and conditions. Action 6.3 recommends the Town actively pursue land acquisition for future park development. 	LOW	Identifies the need to preserve natural areas such as floodplains, and suggests that the Town should proactively pursue land acquisition for future park needs, but offers no means to accomplish these tasks.
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<p>2027 Comprehensive Plan</p>	<p>Chapter 7, Open Space and Greenway Master Plan</p>	<ul style="list-style-type: none"> • Identifies the natural conditions in the Town, such as soils, vegetation, wildlife and watershed areas. • Targets areas for open space and greenway acquisition, including creek and river buffers. • Promotes the Neuse River Greenway, the Mingo Creek Greenway and the Mark's Creek Greenway. • Prescribes Type 1 and Type 2 greenway trail types for areas that are environmentally sensitive. These design types include no facility development and limited development for low-impact uses, respectively. • Prescribes Type 3, unpaved trail development, greenway trail types for areas that experience frequent flooding but are located outside of the floodplain areas. • Provides Design Guidelines for trails that are environmentally sensitive. • Identifies possible funding sources to help implement the goals and actions prescribed within the Open Space and Greenway Master Plan. • Provides methods for protection of Greenways, such as Zoning regulations, tax incentives and Subdivision exactions. 	<p>MODERATE</p>	<p>The Open Space and Greenway Master Plan recommends many means to mitigate natural disasters, primarily flood related. The development of greenways along creeks and river floodplains limit the development that can occur there, and the damage that development could experience in the event of a disaster. It also promotes the preservation of other natural environmental areas by dedicating it as opens space. This decreases impervious areas and helps protect the water quality and ecosystem in the area. The guidelines need to be codified in order to be very effective in mitigating disasters.</p>
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2027 Comprehensive Plan	Chapter 7, Open Space and Greenway Master Plan, Summary Action Plan	<p>Recommended Actions Include:</p> <ol style="list-style-type: none"> 1. Encourage protection of streamside trees and vegetation. 2. Implement buffers along stream corridors and acquire and/or protect parcels in water recharge areas. 3. Restore natural areas, by protecting streambanks and complete streambank stabilization projects. 4. Reduce Flood Damages by removing or relocating repetitively damages structures from the floodway and limiting construction in the floodway by increasing buffers along streams. 5. Work to minimize impervious surfaces and to improve infiltration. 6. Acquire, restore, and/or construct wetlands. 7. Manage riparian zones and natural areas. 8. Provide technical assistance to property owner to minimize impervious surfaces. 9. Conduct annual stream maintenance to maintain stream channel conveyance. 	MODERATE	The Action Plan from the Open Space and Greenway Master Plan recommends many means to mitigate natural disasters, primarily flood related. The development of greenways along creeks and river floodplains limit the development that can occur there, and the damage that development could experience in the event of a disaster. It also promotes the preservation of other natural environmental areas by dedicating it as opens space. This decreases impervious areas and helps protect the water quality and ecosystem in the area. The guidelines need to be codified in order to be very effective in mitigating disasters.
2027 Comprehensive Plan	Chapter 8, Transportation Master Plan	Endorses the Greenway Trail System	LOW	The Transportation Plan reinforces the importance of the greenway system, but does little to mitigate future damages from potential disaster.



2027 Comprehensive Plan	Chapter 9, Public Utilities Master Plan	Identifies the Neuse River drainage basin and the nine sub-basins that exist in the Town of Knightdale, as well as the existing and projected utilities of the Town. Provides objectives and actions to guide development of the Town's Utilities.	LOW	The Utilities Plan identifies drainage basins within the Town and prescribes utility improvements, such as new wastewater facilities, to handle future growth. However, the Plan is not an effective mitigation tool.
2027 Comprehensive Plan	Chapter 10, Implementation Strategy (see appendix #)	<p>Offers strategies to implement the Action Items outlined in the Comprehensive Plan in two primary areas: Growth Management Strategy and Unified Development Ordinance Revisions. Specifically, this Chapter offers the following:</p> <ul style="list-style-type: none"> • Community Character and Land Use <ol style="list-style-type: none"> 1. Preserve and enhance Tree Canopy by adopting a Tree Protection Ordinance, planting requirements, conservation subdivision regulations, encourage tree planting programs. (Strategy 1). 2. Enhance community appearance by implementing additional open-space dedication requirements (Strategy 2). • Open Space <ol style="list-style-type: none"> 1. Establish a funding source to acquire open space (Strategy 1) 2. Adopt Model Conservation Subdivision Ordinance (Strategy 2). • Water and Sewer <ol style="list-style-type: none"> 1. Adopt Uniform Natural Resource Protection Standards and Incentives (Strategy 2) • Unified Development Ordinance Modifications 	MODERATE	The Implementation Strategy is very helpful at identifying how the goals of the Comprehensive Plan can be achieved. It identifies strategies and the authority to make the changes, and establishes a timeframe for completing them. Many strategies identified will help the community mitigate future disasters, however, the Town must meet these recommendations in order to effectively mitigate future damages.



<p>City of Raleigh Water Conservation Task Force</p>	<p>Water Stage Restrictions</p>	<ul style="list-style-type: none"> ▪ Stage 1 restrictions generally provide for designated irrigation one day per week for those using automatic or non-automatic irrigation systems and garden hose attached sprinklers. Water customers may water on two designated days a week if they are physically holding a garden hose. In past applications, water use has dropped by 19 percent. ▪ Stage 1A restrictions prohibited lawn and landscape irrigation except by hand held hose or low volume drip irrigation. Customers also could not wash their vehicles except at commercial car wash facilities. Furthermore, the City will stop issuing permits that allowed for the watering of new lawns for 45 days. In past applications, water use has dropped by 24 percent. ▪ Stage 2 restrictions prohibit the use of public water for irrigation, among other things. In past applications, water use has dropped by 42 percent. 	<p>MODERATE</p>	<p>Although there are plans to expand the area's potable water supply, water use restrictions serve to remind the public that this resource needs to be conserved not only in times of definite drought, but at all times, since a drought may come about at any moment.</p>
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E. LEGAL CAPABILITIES

Local governments in North Carolina have a wide range of tools available to them for implementing programs, policies and actions that mitigate loss of life and property from future disasters. The four broad types of powers granted by the State to local communities such as Knightdale are Regulation, Acquisition, Taxation and Spending.

North Carolina is a Dillon's Rule state, meaning the legal capabilities of the Town of Knightdale are subject to constraints placed upon it by the State, which are broadly covered in Section 160A of the General Statutes of North Carolina. In simpler terms, local governments can only exercise the powers that the State grants upon them. This section will assess the enabling legislation that exists in North Carolina to allow local communities to implement hazard mitigation tools and techniques.

GENERAL POLICE POWER

All of the legal authority available to communities is derived from general police powers, which are designed to protect public health, safety and welfare. This general power enables local officials to enact and enforce ordinances and to define and abate nuisances. Preparing for disasters, and creating a disaster resistant community, clearly meets the criteria of protecting public health, safety and welfare.

BUILDING CODES AND INSPECTION

Building codes and inspections provide the Town the means to ensure that structures are built to minimum standards. The legal authority to establish building codes and inspections enables the Town to require buildings to be constructed with a high wind resistance, and that they meet flood-proofing measures when applicable. Likewise, inspections play an important part in mitigation. Not only does it ensure that the structure was built in accordance with the code requirements, it also enables communities to inspect structures after a disaster, and to determine whether the structure is habitable, or if substantial damage has been done to the building.

LAND USE PLANNING

The General Statutes also allow communities to regulate the location, density, type and timing of development within the Town. This broad power is the basis for this plan, as well as the Town's 2027 Comprehensive Plan and provides a guide for how development should occur. It is the impetus of the Town's Unified Development Ordinance.

ACQUISITION

Acquisition is an important tool for mitigating effects of disasters. North Carolina General Statutes provide Town's the ability to acquire land. The ability of Towns to acquire land that is susceptible to natural hazards, such as flooding, is the most effective means to mitigate future damages. By purchasing properties that have a high likelihood of flooding, the Town can



remove any existing or future development from occurring there, and ensure that future floods will not result in the loss of life or personal property at that site in the future.

TAXATION

Taxation can be a powerful mitigation tool as a development guide. This can be accomplished through tax abatements to encourage development to integrate mitigation measures into the process of building new developments and retrofitting existing properties in the floodplain.

F. FISCAL CAPABILITIES

The Town of Knightdale has a limited fiscal capability to implement hazard mitigation strategies. The Town's operating budget of \$9,649,200 for Fiscal Year 2008-2009 includes the Town's General Fund Expenditures and Capital Improvement Projects. Little, if any, money is available to implement mitigation programs, other than regulatory policies.

Fortunately, there are a number of grants for mitigation activities to assist the Town in mitigating disasters. The North Carolina Division of Emergency Management has a listing of over 300 government funding sources for mitigation and disaster assistance. They can be accessed on the NCEM Mitigation website at www.nccrimecontrol.org by clicking on the "Grants" section. Most notable are the following:

EMERGENCY MANAGEMENT PERFORMANCE GRANT (EMPG)

EMPG provides funds to assist State and local governments to sustain and enhance all-hazards emergency management capabilities. It provides an all-hazards approach to preparedness, including the development of a comprehensive program of planning, training, and exercises, sets the stage for an effective and consistent response to any threatened or actual disaster or emergency, regardless of the cause.

HAZARD MITIGATION GRANT PROGRAM (HMGP)

The Federal Disaster Assistance Act (Stafford Act) provides funds authorized by the federal government and made available by FEMA for a cost-share program to states. The HMGP provides 75% of the funds while the states provide 25% of the funds for mitigation measures through the post-disaster planning process. The Division of Emergency Management administers the program in this state. The state share may be met with cash or in-kind services. The program is available only for areas affected by a Presidentially-declared disaster.

HAZARDOUS MATERIALS EMERGENCY PREPAREDNESS GRANT PROGRAM (HMEP)

The Hazardous Materials Emergency Preparedness (HMEP) Grants Program provides financial and technical assistance to enhance State, Territorial, Tribal, and local hazardous materials emergency planning and training. The HMEP Grant Program distributes funds to emergency responders for hazmat training and to Local Emergency Planning Committees (LEPC's) for hazmat planning.



HOMELAND SECURITY

Assists local and state partners in the securing of federal funding to address North Carolina's ability to prevent, protect, respond and recover to all hazards, both man-made and natural. The NCEM Homeland Security Branch coordinates the implementation of the State Homeland Security Program with local, state, federal and private partners.

INDIVIDUAL ASSISTANCE

Individual Assistance ensures that individuals and families have access to the full range of State and Federal programs made available in the aftermath of a disaster and develop and maintain partnerships with State, Federal and voluntary organizations that deliver resources to disaster victims.

PUBLIC ASSISTANCE PROGRAM (PA)

The Public Assistance provides federal aid to communities to help save lives and property in the immediate aftermath of a disaster and to help rebuild damaged facilities. Grants cover eligible costs associated with the repair, replacement, and restoration of facilities owned by state or local governments and nonprofit organizations. The Public Assistance program is administered by FEMA.

SMALL BUSINESS ADMINISTRATION DISASTER ASSISTANCE PROGRAM

This program provides loans to businesses affected by Presidentially declared disasters. The program provides direct loans to businesses to repair or replace uninsured disaster damages to property owned by the business, including real estate, machinery and equipment, inventory and supplies. Businesses of any size are eligible. Nonprofit organizations are also eligible. The SBA administers the Disaster Assistance Program.

COMMUNITY DEVELOPMENT BLOCK GRANTS (CDBG)

The CDBG program provides grants to entitlement communities (metropolitan cities and urban counties) for post-disaster hazard mitigation and recovery following a presidential declaration of a Major Disaster of Emergency. Funds can be used for activities such as acquisition, rehabilitation or reconstruction of damaged properties and facilities and redevelopment of disaster-affected areas. Funds may also be used for emergency response activities, such as debris clearance and demolition and extraordinary increases in the level of necessary public services. HUD provides funds for the CDBG and the Division of Community Assistance administers the program in each state.

G. POLITICAL CAPABILITIES

The Town of Knightdale is very supportive of mitigation efforts. This support is evident from the elected officials, the residents of the Town, and the developers who are helping the Town grow. All parties understand the importance of development in a manner that respects the natural constraints that exist, and the role the Town plays in ensuring that future development remain at a low risk from possible disasters. This attitude toward mitigation measures is expected to continue in the future, even as Mayors and Council Members change.

